Problems with the homework?

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Let x = original cost of the item in dollars

22. $x + 4.95 = 0.09x + x$

$\frac{4.95}{0.09} = \frac{0.09x}{0.09}$

$55 = x$

The cost is $55

verify LS	RS
4.95	0.09x
	0.09(55)
	4.95

LS = RS ∴ cost = $55

24. $\frac{4x + 37}{5} = -17$ (×5)

$4x + 37 = -85$ (−37)

$\frac{20x}{20} = \frac{-122}{20}$

$x = -6.1$

LS	RS
$\frac{4x + 37}{5}$	−17
$\frac{4(-6.1) + 37}{5}$	
$\frac{-24.4 + 37}{5}$	
$\frac{12.6}{5}$	
2.52	

LS = RS ∴ x = −6.1

24. c) $\frac{3}{4} - 5p = \frac{67}{6}$ (×12)

$9 - 60p = 134$ (−9)

$\frac{-60p}{-60} = \frac{125}{-60}$

$p = -\frac{25}{12}$

LS	RS
$\frac{3}{4} - 5p$	$\frac{67}{6}$
$\frac{3}{4} - 5\left(-\frac{25}{12}\right)$	
$\frac{3}{4} + \frac{125}{12}$	
$\frac{9}{12} + \frac{125}{12}$	
$\frac{134}{12}$	
$\frac{67}{6}$	

LS = RS ∴ $p = -\frac{25}{12}$

Solve and verify

1) $7 - 6x = 85$

3) $10x + 4 = -2x - 32$

2) $\frac{-6x}{4} + 7 = \frac{4}{5}$

4) $6(x-3) = 30$

Show all work Solve and verify

1) $7 - 6x = 85$

$-7 \quad -7$

$\frac{-6x}{-6} = \frac{78}{-6}$

$x = -13$

LS	RS
$7-6x$	85
$7-6(13)$	
$7+78$	
85	

LS=RS ∴ $x=-13$

2) $\frac{-6x}{4} + 7 = \frac{4}{5}$ (20)

$-140 \quad -140$

$\frac{-30x}{-30} = \frac{-124}{-30}$

$x = \frac{62}{15}$

LS	RS
$\frac{-6x}{4} + 7$	$\frac{4}{5}$
$\frac{-6(\frac{62}{15})}{4} + 7$	
$\frac{-2(\frac{62}{5})}{4} + 7$	
$-\frac{124}{20} + \frac{140}{20}$	
$\frac{16}{20}$	
$\frac{4}{5}$	

LS=RS ∴ $x=\frac{62}{15}$

3) $10x + 4 = -2x - 32$

$+2x \quad +2x$

$\frac{12x}{12} = \frac{-36}{12}$

$x = -3$

LS	RS
$10x+4$	$-2x-32$
$10(-3)+4$	$-2(-3)-32$
$-30+4$	$6-32$
-26	-26

LS=RS ∴ $x=-3$

4) $6(x-3) = 30$

$+18 \quad +18$

$\frac{6x}{6} = \frac{48}{6}$

$x = 8$

LS	RS
$6(x-3)$	30
$6(8-3)$	
$6(5)$	
30	

LS=RS ∴ $x=8$